REMARKS

This is a response to the Office Action of March 19, 2004.

Claim 1 is amended for consistency in referring to a "bridge device". Additionally, claims 1, 4, 5 and 8 are amended to incorporate the subject matter of claims 10-13, respectively. Claims 10-13 are cancelled. Entry of the amended claims is appropriate since the amendments do not require further searching or significant reconsideration by the Examiner. Moreover, entry of the amended claims places the application in condition for allowance, or at least in better condition for appeal.

Applicant acknowledges the withdrawal of the 35 U.S.C. §103 rejection in the previous Office Action in view of U.S. patent 5,881,269 to Dobblestein and U.S. patent 5,996,016 to Thalheimer et al. (Thalheimer).

Regarding paragraph 3 of the Office Action, claims 1, 2 and 4-16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. patent 5,881,269 to Dobblestein in view of U.S. patent 5,996,016 to Thalheimer et al. (Thalheimer), and further in view of U.S. patent 5,794,128 to Brockel et al. (Brockel).

Brockel discloses a system for simulating a military war game scenario by simulating wireless information transport systems that replicate time and frequency dynamics effects on stationary and mobile communications systems (Abstract). To this end, Brockel provides a network simulation means 9 (Fig. 4) that is responsive to simulation inputs 13 (column 7, lines 2-6). The network simulation means 9 simulates a plurality of simultaneous voice, data and imagery information exchanges at intranetwork and internetwork levels among stationary and moving platforms (column 7, lines 36-40). Additionally, in operation of the network simulation means 9, simulation of a plurality of protocols at each layer may be selected by the operator, including a plurality of Internet protocol services and a plurality of networking capabilities such as routing, relaying, address-resolution and interworking (column 8, lines 1-6).

Accordingly, Brockel is concerned with a simulated network, not a real network. In particular, Brockel seeks to simulate the behavior of a real network and communication environment by simulating, e.g., variations in connection quality and other communications and

connectivity problems on the digitized battlefield caused by radio communications (column 7, lines 43-49).

The Examiner asserts that Brockel discloses the simulation of bridging protocols at the data link layer. Applicant respectfully disagrees with this assertion. Regarding Figures 2-5 cited by the Examiner to support the assertion, there is no mention of bridging. Regarding column 5, lines 16-36, this passage refers to simulating a wireless information transport system, but there is no mention of bridging. Regarding column 8, lines 1-20, lines 8-12 in particular state: "A data link layer of said network simulation means 9 provides capabilities relating to functions such as data-flow control, roving host configuration protocol and error-correction and recovery." Again, there is no mention of bridging.

In fact, a bridge is only mentioned once by Brockel, at column 6, lines 23-31, in defining a node. It is noted that a node refers to a single communications center from which information either originates, terminates or is passed through, and can include a single radio, cellular phone, repeater, switch or computer terminal and any combination of gateways or routes, bridges and computer terminals.

Furthermore, note that Applicant's claims (claim 1, for instance) set forth a "bridge device," e.g., a physical device, with interfaces for communicating with other real entities, such as a frame generator, a network and a system under test. This is an important distinction over the cited references since Applicant's invention provides the ability to test a real system under test, such as a server, by providing realistic client/server network traffic and load (specification, page 13, lines 5-8).

The Examiner further asserts that it would be obvious to combine the teachings of Dobblestein, Thalheimer and Brockel, and that such a combination renders Applicant's claims obvious. The Examiner asserts that such a combination is motivated by the desire to solve the problems of developing a wireless network by using a simulator as opposed to using real hardware and field tests. However, Applicant's invention in fact uses real hardware, e.g., a bridge device, which tests the capacity of a real system under test, such as a server in a network. Accordingly, a person of skill in the art would not consider the teachings of Brockel, which is directly solely to testing a simulated network, not a real network.

Furthermore, as mentioned, the combination of Dobblestein, Thalheimer and Brockel still does not lead one of ordinary skill in the art to the present invention at least since Brockel does not teach a bridge device operating at a data link layer in a protocol stack, for the reasons mentioned above.

Moreover, it is not clear how the teachings of Brockel could be combined with the teachings of Dobblestein and Thalheimer into a working system since Dobblestein uses client and server machines 80, 81, respectively, connected by a real LAN 83, not a simulated network, and Thalheimer is not concerned with simulating the behavior of a real network and communication environment.

Regarding claim 2, the simulated router function 52 of Thalheimer is simulated by a processing system 20 (Fig. 4, column 5, lines 33-44). In fact, the subnets 54, 56 and 58 are all simulated within the processing system 20 and therefore are not real networks. The network of physical devices 50 is real. Accordingly, contrary to the Examiner's assertion, the processing system 20 cannot be a frame generator coupled to a bridge device since there is no actual bridge device.

Regarding independent claim 4, Applicant respectfully submits that the Examiner has not pointed out where each of the features of independent claim 4 are shown by the prior art. Accordingly, a *prima facia* case of obviousness has not been made (MPEP 2142). Regarding the assertion that Thalheimer discloses a plurality of bridges, as discussed above, the simulated router function 52 of Thalheimer is not a bridge device as claimed by Applicant. Moreover, there is no mention of the simulated router function 52 comprising primary and secondary bridge devices as set forth in claim 4, where the primary bridge device passes a received broadcast message without delay, and the secondary bridge device passes the received broadcast message with a predetermined delay.

Regarding the Examiner's assertion that it would be obvious to combine Dobblestein with Thalheimer since adding a bridge/router functionality to a simulation of a network would cause the simulation of the network to more closely approximate the way a real network operates, Applicant notes that Dobblestein is not concerned with causing the simulation of a network to more closely approximate the way a real network operates. Instead, Dobblestein is concerned

with simulating multiple network clients on a single workstation. To this end, Dobblestein uses a client machine 80 and a server machine 81 that are coupled by a real LAN 83. There is no concern whatsoever with simulating a LAN or other network. Accordingly, the asserted motivation for combining Dobblestein and Thalheimer is not believed to be valid.

Regarding independent claim 5, Applicant respectfully submits that the Examiner has not pointed out where each of the features of independent claim 5 is shown by the prior art. Accordingly, a *prima facia* case of obviousness has not been made (MPEP 2142). Moreover, Figures 2 and 3 of Thalheimer are cited as disclosing the configuring of routing information. Figures 2 and 3 show binding an IP address to an application, e.g., FTP, SNMP and TGen, in the processor 20. The multiple applications execute on an operating system 21 resident in the processor 20 (column 3, lines 45-48). Accordingly, Thalheimer is not configuring bridging information in a bridge device. Moreover, Thalheimer does not even use an actual bridge device as claimed, as discussed previously. Moreover, the asserted motivation for combining Dobblestein and Thalheimer is not believed to be valid, as discussed in connection with claim 4.

Regarding claim 6, Applicant respectfully submits that Dobblestein does not disclose the claimed features in the context of the method of the associated independent claim 5.

Regarding claims 7 and 8, the Examiner refers to paragraph 6.1. Applicant assumes this should be paragraph 3.1. Applicant relies on the comments made above in response to paragraph 3.1

Regarding claims 10-16, the feature of the data link layer in cancelled dependent claims 10-13 has been incorporated into the associated independent claims and discussed above. The Examiner's comments regarding Brockel have been addressed above as well.

Withdrawal of the rejection under Dobblestein, Thalheimer and Brockel is therefore respectfully requested.

Regarding paragraph 4 of the Office Action, claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. patent 5,881,269 to Dobblestein in view of U.S. patent 5,996,016 to Thalheimer et al. (Thalheimer), further in view of U.S. patent 5,794,128 to Brockel et al., and further in view of U.S. patent 6,530,078 to Shmid et al (Shmid).

Shmid discusses the use of an Open System Adaptor for giving a DPPX guest system access to TCP/IP networks (column 9, lines 31-35). However, Applicant respectfully submits that this teaching, even in combination with the other references, does not lead one of ordinary skill in the art to Applicant's invention, where a frame generator is coupled to a bridge device using an Open System Adapter connection. In particular, Shmid discloses a method to quickly migrate applications from any operating system to an OS/390 operating system. Thus, Shmid only supplies an operating platform that is available natively. The virtualization provided by Shmid is unneeded and only adds to the cost of a solution provided by a simulator alone. Thus, there is no motivation to combine Shmid with any simulator.

Withdrawal of the rejection under Dobblestein, Thalheimer, Brockel and Shmid is therefore respectfully requested.

In closing, it should be noted that Applicant's invention enables testing of a system under test, such as a server, using a bridge device that operates at a data link layer in a protocol stack. This approach is advantageous since it is not application specific, and exercises all client-specific paths in the system under test while provide a high fidelity simulation (specification, page 2, lines 25 to page 3, line 1).

In view of the foregoing remarks, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance be issued. If the Examiner believes that a telephone conference with the Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,

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